TITLE OF THE INVENTION

METHOD AND APPARATUS FOR WIRELESS NETWORKING

CROSS-REFERENCE TO RELATED APPLICATIONS

Not Applicable

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

Not Applicable

REFERENCE TO A "MICROFICHE APPENDIX"

Not Applicable

BACKGROUND OF THE INVENTION

Technical Field

The present invention relates in general to a method and apparatus for wireless networking. The invention more particularly relates to wireless networking router systems for facilitating communications via wireless transmission, in a more efficient and reliable manner.

Background Art

In industrial automation it becomes necessary to gather information from several remote sites and use that information to control operations at the remote sites. The data is gathered by using various types of transducers that measure the physical variables (such as temperature, revolutions per minute, etc.) and convert them into electrical signals. Similarly the remote equipment can be controlled by using mechanisms that

Recently some RTUs have begun to use the Internet Protocol (IP) using ethernet communications. Using IP protocol allows having a router on the same ethernet. An IP router, such as the one marketed under the tradename "MAVRIC" by Metric Systems Corp., of Carlsbad, California, can allow access to wireless transmission of the data across a network of arbitrary topology, by interconnecting ethernet or other inputs to the flexibility of the topology offered by IP routing allows placement of radios wherever they are needed for connectivity. The combination of an RTU using IP on an ethernet channel and an IP router on the same ethernet channel solves all the topological problems of using wireless communications for data acquisition and control.

While such a system has proven highly successful, it would be desireable to have a more band width utilization efficient system to operate at a variety of different bands.

SUMMARY OF THE INVENTION

The principal object of the present invention is to provide a new and improved method and apparatus for facilitating wireless networking.

Another object of the present invention is to provide such a new and improved method and apparatus which are more band width utilization efficient.

Briefly, the above and further objects of the invention are realized by providing an improved technique for greatly improving the band width utilization efficiency.

A method and apparatus for wireless networking employs a wireless protocol module and a wireless device interface module for controlling a remote terminal unit,